

**Claims:**

We claim:

1. A process for supplying bubbles to a filtering membrane immersed in a  
5 tank containing water comprising the steps of:
  - a) flowing a gas to an aerator to produce bubbles from the aerator which contact the filtering membrane;
  - b) after step a), reducing the pressure in the aerator such that water in the tank enters the aerator and wets solids accumulated in the aerator;
  - 10 and,
  - c) after step b), returning to step a).
2. The process of claim 1 wherein step b) comprises reducing the rate of flow of gas to the aerator by at least half.
- 15 3. The process of claim 1 wherein step b) comprises stopping the flow of gas to the aerator.
4. The process of claim 1 wherein step b) comprises venting the aerator  
20 to atmosphere.
5. The process of claim 1 wherein the aerator is vented to atmosphere by opening a valve in a pipe in communication with the aerator.
- 25 6. The process of claim 1 wherein step b) is performed periodically, successive performances of step b) being separated by a pre-determined time interval.
7. The process of claim 1 wherein the aerator has holes in its bottom  
30 surface.

8. An apparatus for aerating a membrane immersed in a tank containing water, comprising:

- a) an aerator located to provide bubbles which contact the membrane;
- b) a pipe connecting the aerator to an air supply source; and,
- 5 c) a pipe connecting the aerator to atmosphere through a valve.

9. The apparatus of claim 8 wherein the aerator has a series of holes at the bottom of the aerator.